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## REVIEWS

*Flora Europaea*. Edited by T. G. TUTIN, V. H. HEYWOOD, N. A. BURGESS, D. H. VALENTINE, S. M. WALTERS, AND D. A. WEBB. Vol. 1. Lycopodiaceae to Platanaceae, xxxii + 464 pp., 5 maps. Cambridge Univ. Press. 1964. \$16.00.

From the beginning in 1956, the *Flora Europaea* project has been broadly cooperative, highly organized, and based on a premise that much value lies in having a flora completed in the shortest possible time. Volume I, contributed by 51 authors representing 14 nationalities, provides in part the first synthesis of the European flora on a continental scale and, much to the benefit of most American botanists, in a single language. The remaining three volumes are planned for publication within the next eight years. The area covered, shown by maps, extends from Spitzbergen to the Azores and eastward through the Mediterranean (including Sicily, Crete, European Turkey, Crimea, and northern shore of Caspian Sea) to the Ural Mountains.

Readers should be able to name to subspecies any fern (or fern ally), conifer, or flowering plant which grows wild in Europe and also those commonly cultivated. The descriptions are brief but adequate and often are followed by a cogent statement regarding variability and relationships to other taxa—a strong feature. Author or editor credit is provided for each generic treatment. Chromosome numbers sensibly are given only if determined from materials of known wild European origin. A check-list of references will be published separately which ought to explain some new reports such as  $2n = 22$  for *Meconopsis cambrica*. Sections, subgenera, and subfamilies appear where appropriate in the text. All families to be treated in the four volumes are keyed in Volume I. The sequence is Englerian except that monocots will come last. Filicopsida are divided into 21 families. Molluginaceae, Tetragoniaceae, and Parnassiaceae will seem strange to Americans. Paeoniaceae follows Ranunculaceae, Fumariaceae is submerged. *Mahonia* is separated from *Berberis*. *Platanus acerifolia* is considered a synonym of *P. hybrida* Brot. *Raphanus raphanistrum* is divided into five subspecies; *Brassica rapa* L. is favored over *B. campestris*, showing that California botanists have something still to learn. Of very minor moment, Capparaceae is conserved over Capparidaceae and the perigynous condition of *Eschscholzia* was overlooked.

The format should satisfy nearly everyone and there are useful dividends such as the list of basic or standard floras of the region, the list of families in Volume I, and the lists of titles of books and periodicals cited in the text. An index to signs, abbreviations, and explanatory notes, as well as a glossary of technical terms and some English-Latin equivalents are printed on blue paper for quick finding. The only suggestion that I dare make is that type species or lectotype species for genera ought to have been indicated at least when a member of the flora.

Many years will pass before the full significance of the *Flora Europaea* project can be known. Undoubtedly many European botanists, besides the contributors, will be stimulated to look once again at the plants in their own backyards. The numerous statements of compromise in this text point out many interesting problems which call for more detailed study. Instead of bringing floristic researches to a close, the *Flora* surely will be the starting point for an entirely new look at the plants of Europe. With this major effort recently completed, the floristic gaps in the northern hemisphere stand almost as a challenge. Here is a model, which ought

to be in every practicing taxonomist's office, and perhaps it is time to think seriously about a *Flora North America*.—WALLACE R. ERNST, Smithsonian Institution, Washington, D. C.

## NOTES AND NEWS

**ARCEUTHOBIMUM DOUGLASII IN NEVADA AND WYOMING.**—The Douglas-fir dwarf-mistletoe, *Arceuthobium douglasii* Engelm., is one of the most widely distributed members of the genus in North America, ranging from southern British Columbia (J. Kuijt, Natl. Mus. Canada Bull. 186:134-148. 1963) south to Durango and Nuevo León in Mexico (F. G. Hawksworth and D. Wiens, Brittonia, in press). Gill (Trans. Conn. Acad. 32:111-245.1935) recorded this species in all of the eleven Western States except Nevada and Wyoming. Recently *A. douglasii* was discovered on *Pseudotsuga menziesii* (Mirb.) Franco in these two states by R. S. Peterson of the U. S. Forest Service. Nevada. White Pine Co.: NE slope of Wheeler Peak, W of Baker, *Peterson 63-337*. Wyoming. Lincoln Co.: Wolf Creek Campground, Snake River, Targhee National Forest, *Peterson 62-64* (RM); Teton Co.: 4 miles E of Idaho border on Teton Pass Road, *Peterson 62-12* (RM). Specimens of the above are in the herbarium of the Rocky Mountain Forest and Range Experiment Station. *Arceuthobium douglasii* does not occur in many areas where *Pseudotsuga menziesii*, its principal host, is found. It has not been observed in northern Colorado, central Wyoming, central Montana, Washington or Oregon west of the Cascades except in southern Oregon, or in California south of Siskiyou and Shasta counties (J. Kuijt, *Madroño 15:129-139*. 1960).—FRANK G. HAWKSWORTH, U. S. Forest Service, Rocky Mountain Forest and Range Experiment Station, Colorado State University, Fort Collins.

**WASHOE PINE ON THE BALD MOUNTAIN RANGE, CALIFORNIA.**—Until recently Washoe pine, *Pinus washoensis* Mason & Stock., was known only from its type locality, a small area on the east slope of Mount Rose, southwest of Reno, Nevada (*Madroño 8:61-63*. 1965). In 1961 Haller (*Madroño 16:126-132*) reported an extensive uncut stand in the southern Warner Mountains, in the northeastern corner of California. Both stands have certain features in common: they occur at higher elevations (7000-8000 ft) than the closely related *P. ponderosa* Laws., and they front on the sagebrush plains of the Great Basin at the eastern edge of the Sierra Nevada mixed-conifer forest.

During the summer of 1964 we encountered Washoe pine in the Bald Mountain Range, about 20 miles northwest of the Mount Rose stand and 100 miles south of the Warner Mountains stand (UC, and conifer herbarium of the Institute of Forest Genetics, Placerville.) We looked for it there because this range is the most extensive area of high-elevation forest fronting the sagebrush plains between Mount Rose and the Warner Mountains. The 5-mile-long crest of the Bald Mountain Range is from 8000 to 8760 ft in elevation, is oriented in a NNW-SSE direction, and forms part of the easternmost ridge of the Sierra Nevada. Its high point, Babbitt Peak, is at 39° 36.1' N. latitude and 120° 06.2' W. longitude.

We examined only the northern part of the range, from Babbitt Peak to a point about 3 miles northwest of the peak where the ridge drops off sharply to the north. Washoe pine is mostly confined to the top of the ridge, but is occasional in the *Cercocarpus ledifolius* Nutt. scrub on the west slope and in the *P. monticola* Dougl. forest on the east slope. The other common trees on the ridge are *Abies concolor* (Gord. & Glend.) Lindl., *Juniperus occidentalis* Hook., and *Populus tremuloides* Michx. *Pinus jeffreyi* Grev. & Balf. and *A. magnifica* A. Murr. are present but rare.

This Washoe pine stand consists of only a few hundred trees. The pines on the ridge-top are mostly wind-deformed, but occasional trees on the east slope range up to about 3 ft in diameter at breast height and 90 ft in height.

Flowering had just begun when we visited the area on July 4. The species can